





# Penang's 1st Quarter 2002 GDP Estimated At 4.1%

## *Introduction*

After many months of anxiety it is a consolation that more encouraging economic signals are beginning to appear around us. For a while, the most serious threat was the inability of the pegged currency to adjust downward alongside competitive exporters among Malaysia's neighbours in response to the weakened global economy throughout 2001. Penang is particularly vulnerable because of its export orientation. However, given that the Federal Government has announced a positive 3% growth in Malaysia's economy for the quarter ending June 2002, there is clear indication that the economy is already on its upswing. There have been three consecutive quarters of positive growth that began with the last quarter of 2001. Furthermore, with the weakening of the U.S. dollar relative to major currencies, the ringgit will no longer be unnecessarily strong and therefore hamper export competitiveness of Malaysian goods.

Given these developments, SERI estimates a 4.1% growth year-on-year for Penang's economy and 3.3% annualised growth over the previous quarter as of the end of March 2002 (i.e., first quarter 2002). However, it must be emphasized that figures pertaining to Penang's economy will always be estimates simply because there is no official data assembly by government or any other body that will allow a formal gross regional product or GRP (the state equivalent to the national GDP) figure to be officially announced.

Our 4.1% rate fits into the forecast of 4.16% made under Scenario 5 that was announced at the Penang Outlook Conference last November. Under this scenario, the 12-month trade balance for Malaysia would have to be at US\$6.5 billion, which was the average achieved from the first quarter of 1994 through September 2001 (i.e. containing both peaks and troughs in the economy), the Japanese economy sliding 0.8% through to the end of 2002 and the US. economy remaining flat for the first two quarters of 2002. The actual figures as of the end of March 2002 are: the country's 12 month trade balance reaching US\$14.1 billion, the Japanese economy having slid -1.6% and the U.S. economy positive at 1.7%.

In essence, Malaysia's export figures have recovered handsomely, reflecting post 1998 economic recovery rates, during which time, imports had moderated considerably while export sales had strengthened. The U.S. economy has done better than expected showing positive numbers early in 2002 allowing therefore the 3-4% expansion forecasted for the second half of 2002 to now become closer to reality.

Given these better numbers compared to scenario 5, why then is Penang's growth estimate not better than 4.1%. The downside is Japan has slid 1.6% or double the rate of decline given under scenario 5. This suggests that the Japanese economy has a strong influence on the Penang economy. Better numbers for Penang will hence depend on Japan doing better.

Our analysis thus reflects views given by Prof. Ronald McKinnon who is William D.Eberle Professor of International Economics at Stanford University and holder of the Tun Ismail Ali Chair in Monetary and Financial Economics. Prof. McKinnon gave a public lecture at Universiti Sains Malaysia on 17 July. He showed evidence that East Asian economies over the last 20 years have currencies that more or less move closely with the American dollar. This is largely because much of the trade by these countries are invoiced using the dollar as an international currency. But what is astonishing is that not only have business cycles among Asian countries become increasingly synchronised but also their business cycles have, during the last 20 years, move in tandem with fluctuations between the yen and the dollar. This means that Asian business cycles go on the upswing when the yen is strong relative to the dollar and move downwards when the yen weakens. Prof. McKinnon thus advocate a link between the yen and the U.S. dollar that allows both to move in tandem with one another. This would dampen business cycle effects throughout much of East Asia and stabilise economies as well as their currencies.

## *Q1 Performance of Penang's Economy*

The Q12002 growth for Penang was hearty after a contraction of 2.8 percent in 2001. While incidences of retrenchment have slowed down in the State, value-adding activities have maintained or improved gradually. Growth for Q1 in Penang was mainly driven by growth in almost all sectors of the economy except for the con-

struction sector.

Table 1: GDP Growth (%), Q1

% Growth	Penang	
	% Growth (e) y-o-y	% Growth (e) qtr-on-qtr
Agriculture	10.8	1.8
Mining & Quarrying	1.2	-0.8
Construction	-4.9	-2.1
Manufacturing	4.4	6.7
Tertiary	3.2	0.4
GDP (at purchasers' value	4.1	3.3

### Manufacturing Sector

The manufacturing sector, which accounted for almost half of the State's GDP is estimated to record a y-o-y growth of 4.4 percent in Q1. Likewise, the sector is estimated to record a 6.7 percent growth, quarter-on-quarter. Although the nation registered a contraction in the manufacturing sector in Q1, the sector, which experienced a double-digit contraction in 2001 is expected to perform better in Q1 of 2002 in Penang.

Penang is known for its competency in the electronics industry, particularly the semiconductor industry, which accounted for one-third (MIDA) of the nation's electronics exports in 2001. Recent data from the Semiconductor Industry Association (SIA) indicates that the Asia Pacific sales for semiconductor are improving. Asia Pacific sales of semiconductor recorded a quarter-on-quarter growth of 3.3 percent despite recording a negative y-o-y growth was recorded for Q1. More importantly, the performance of the Asia Pacific market for Q1 was much better than the global semiconductor market (see Table 2).

Table 2: Growth in Semiconductor Sales, Q1 2002

	Asia Pacific	Total
Q1 y-o-y	-3.5%	-33.8%
Q1 qtr-o-qtr	3.3%	-1.4%

Source: Derived from SIA

Another major sector with relatively robust supply chain in Penang is the PC sector. IDC Corp, in the New York Times of June 13, 2002, reported an increase in the forecast for 2002 global PC sales to 4.7 percent. It also reported that the Asian growth would lead the world, with Europe lagging the US and Japan shipments declining. In the July 3 2002 CMPnet Asia, Gartner Dataquest forecasted that PC sales is expected to grow more rapidly, by four times within the next six years compared to the previous 25 years (the PC industry took approximately 25 years to reach the billion mark and is expected to reach the next 1 billionth by 2008). Asia Pacific, which makes up just over 11 percent of PCs sales worldwide, (CMPnet Asia, July 3, 2002) is expected to significantly contribute towards PC sales because over half of the world's population reside in Asia Pacific. These are positive trends that contribute to the growth of the electronics sector in Penang.

According to the June 2001 Survey of the Manufacturing Industries by the Penang Development Corporation,



the electrical & electronics industry accounted for 68 percent of the total value added (derived from the difference between sales & purchases) in the PDC's industrial areas. A quick tour of the PDC's industrial areas also indicates that the electronics companies predominate the E&E sector. Despite the fact that the national industrial production index indicates that the manufacturing sector recorded contraction for Q1, the electronics sector recorded a quarter-on-quarter growth of 4.86 percent in Q1 with a slight y-o-y contraction of 0.57 percent in Q1. Exports figures, on the other hand, show y-o-y and quarter-on-quarter growths in the electronics industry (see Table 3).

*Table 3: Growth in Exports of Manufactured Goods, Malaysia, Q1 2002*

	Semiconductor	Electronic Equipment & Parts	Total Electronics
Q1 y-o-y	-13.2%	13.8%	1.1%
Q1 qtr-o-qtr	2.2%	5.8%	4.3%

Source: Derived from BNM Monthly Statistical Bulletin

To support the growth of the manufacturing sector, particularly the electronics industry, total cargo handled by Malaysia Airports (MAB) at the Penang International Airport expanded by 6.4 percent the first two months of 2002 compared with the same period in 2001.

In addition, a recent national survey by the Federation of Malaysian Manufacturers shows some positive trends among manufacturers in Malaysia. These include improvement in production volume; relative increase in domestic sales; slight increase in demand; plans by companies to invest in new machinery & equipment; as well as improvement in capacity utilization. Furthermore, an upward trend in the US manufacturing sector, particularly computers and electronics as well as Singapore's manufacturing growth (Source: CIMB Feature 200, 27 June 2002, The Economics Department) suggest that Penang's manufacturing growth is likely to follow suit.

### *Tertiary Sector*

The tertiary sector is another major contributor to the Penang economy. Accounting for more than half of the State's GDP, the tertiary sector is estimated to record a y-o-y growth of 3.2 percent and a quarter-on-quarter growth of 0.4 percent in Q1.

The financial sector saw an increase in the amount of loans awarded in Q1. The quarter-on-quarter growth of loans increased by 0.6 percent while the y-o-y growth was recorded at 7.6 percent (derived from BNM). Likewise, total loans awarded for undertakings in the tertiary sector, namely the utilities; wholesale, retail, hotel & restaurant (VRHR); transport, storage & communication; finance, insurance, real estate & business services (FIREBS) as well as for the purchase of real estate in Penang have also increased.

A major phenomenon today is that many of the manufacturing companies have heeded the recommendation of the Second Industrial Master Plan (1996-2005) to adopt and implement the Manufacturing++ concept, which promotes higher value-added activities in the manufacturing sector. These encompass activities that no longer fall under the category of assembly, manufacture and test but value-adding services/activities such as design, prototyping, distribution, marketing as well as after sales services. This indirectly reduces the manufacturing portion of the overall business of some of the companies in Penang. Nonetheless, this increases the tertiary/services portion of the overall business of these companies. Tertiary activities that are related to the manufacturing sector like logistic, warehousing, distribution, sales, marketing, call centres, backroom offices, design as well as prototyping, which have gradually increased since the mid-1990s, contribute to the growth of the tertiary sector in Penang.

A sub-sector, which began to emerge in the late 1980s and has become more apparent since the late 1990s is the information & communication technology (ICT) sector. Many of the ICT related companies have set up operations in Penang because of the availability of a pool of knowledge resources as well as the environment created by the existing electronics and high-tech industries. Many of these companies have also set up branch offices at Cyberjaya to benefit from the MSC status. These companies have experienced tremendous growth in their business



over the past year despite the fact that the other sectors were experiencing a downtrend. Growth in Penang's ICT sector further contributed to the Q1 growth of the tertiary sector.

#### *Agriculture & Fishery Sector, Mining & Quarrying And Construction*

The agriculture and fishery sector is a relatively small sector in Penang, contributing to not more than 2 percent of the State's GDP. However, with support from both the private and public sector, the agriculture & fishery sector could be modernised and developed to complement the other economic sectors.

Contribution to Penang's M&Q sector is generally from the very limited quarrying activities on the island and the mainland Penang. An insignificant and small sector in Penang (slightly more than 1 percent of the State's GDP), the quarrying sector recorded an almost negligible y-o-y growth of 1.2 percent and an equally inconsequential quarter-on-quarter contraction of 0.8 percent.

The construction sector in Penang continued to experience a downtrend despite growth in other sectors. This is evidenced through the abandoned development projects on both Penang Island and mainland Penang as well as the much delayed construction of the Jelutong Expressway, BORR and PORR. Negative indicators on the construction sector at the national level further support this downward trend.

#### *Conclusion*

Q2 of 2002 is anticipated to accomplish a better performance than Q1 2002. Malaysia's exports continue to do well. Also important is that there is now in place, in the country, the necessary steps for a smooth transition in the premiership over the next 15 months – an issue that has been of great concern among Malaysians particularly the business community. The U.S. economy appear to be recovering steadily even though there were corporate upheavals following news of the Enron debacle last year and the stockmarket being jittery over the past few weeks. We all have to watch the Japanese economy more closely because of its strong influence on Penang's economy. Prime Minister Koizumi is pushing for structural reforms to be speeded up involving cost cutting measures, deregulation and the reduction of expensive public works projects.

The first two months of Q2, namely April & May have recorded higher average sales in global semiconductor compared to the first three months of the year. Positive trends are also observed in the PC industry as well as the supporting and ancillary industries. Industrial production at the national level also recorded a higher index in April compared with the average for Q1. A growth in the manufacturing sector will create a multiplier effect on the other sectors, particularly the tertiary sector. With such positive anticipation, Penang's y-o-y growth for Q2 is forecasted to hit 5 percent. **§ Anna Ong & Chan Huan Chiang**



# Defining The New Knowledge Management Paradigm In The New Economy

## *Introduction*

With the transition to a Knowledge Economy, Intellectual Capital (IC) is gaining importance in today's corporate world. However, being a relatively new concept, only about ten years old, the theories and models surrounding knowledge management are still not well developed. It is necessary to gain a better understanding of IC so as to be able to better measure and value it. Better understanding and measuring of the different components of IC will in turn help to improve the management of IC at a strategic and operational level.

## *Defining Knowledge*

The first step in gaining a better understanding of IC and knowledge management would be to examine more closely the concept of knowledge, especially knowledge as a resource. At present, most accounting practices usually only deal with tangible resources, such as money, property, etc. Already quite developed, attributes of tangible resources include falling scale effects, relatively transparent markets (ie. money), and scarcity (can only be invested once). Knowledge, however is described as an intangible resource, in which there are increasing scale effects, different levels of information and knowledge between different parties, and elimination of the classical scarcity of knowledge, while introducing a scarcity of time in transferring such knowledge.

As an intangible asset, knowledge can only be managed indirectly through people. Through the transfer of knowledge between people, employees will be able to learn more about their business, their markets, their people, and their external environment. The constraint, thus, is to communicate this knowledge better and faster. As such, the scarcity of time in knowledge management can be seen, as the success of knowledge management lies in being able to successfully transfer knowledge from one person to another quickly and efficiently.

Such success is only visible through the "employability" of the receiver of knowledge, or the person(s) being trained. However, the problem with the intangibility of knowledge poses three problems, in that how does one define, value, or manage something that is not tangible? Due to the relatively short existence of knowledge theory, many of the terms and concepts are not yet fully developed, however several of the foremost models currently at use in Europe, the Balanced Score Card (BSC), the European Foundation for Quality Management (EFQM) Model, the Skandia Model, and the Intellectual Capital are presented below.

## *Balanced Score Card Model*

Developed in the 1990's by Robert S. Kaplan (Harvard Business School) and David P. Norton (Renaissance Solutions, Inc.), the Balance Scorecard (BSC) indicates as to what companies should measure in order to have a "balanced" statement.

The BSC, published in 1996 and further developed as well as implemented in several hundred organizations in 1998, views each organizations from four perspective comprising Financial, Customer, Innovation and Learning; and Internal Business Process to collect data and analyze it as well as develop metrics enabling organizations to set visions and strategies.

The Four perspectives are as follows:

- Innovations and Learning

This perspective includes employee training and corporate cultural attitudes related to both individual and corporate self-improvement. In a knowledge-worker organization, people -- the only repository of knowledge -- are the main resource. In the current climate of rapid technological change, it is becoming necessary for knowledge workers to be in a continuous learning mode. Government agencies often find themselves unable to hire new techni-



cal workers and at the same time are showing a decline in training of existing employees. This is a leading indicator of 'brain drain' that must be reversed. In any case, learning and growth constitute the essential foundation for success of any knowledge-worker organization.

- Internal Business Process

Metrics based on this perspective allow the managers to know how well their business are running, and whether its products and services conform to customer requirements. These metrics have to be carefully designed by those who know these processes most intimately; which cannot be developed by outside consultants. Two kinds of business processes may be identified: a) mission-oriented processes, and b) support processes. Mission-oriented processes are the special functions of government offices, and many unique problems are encountered in these processes. The support processes are more repetitive in nature, and hence easier to measure and benchmark using generic metrics.

- The Customer

Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. These are leading indicators: if customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good.

- Financial

Timely and accurate funding data will always be a priority, and often there is more than enough handling and processing of financial data. The current emphasis on financials leads to the "unbalanced" situation with regard to other perspectives.

According to Kaplan and Norton, the rationale for the Balanced Scorecard is as follows:

"The balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation."

### *EFQM Model*

The European Foundation for Quality Management (EFQM) Model was introduced in 1992. It is currently the basis for self-assessment of companies of all sectors and is also the framework for assessing applications for the European Quality Award. It acts as a practical tool to help organisations establish an appropriate management system by measuring success path, defining gaps and coming up with solutions. It is currently the basis for self-assessment of companies of all sectors.

The concept comprises aspects such as Results Orientation, Customer Focus, Leadership & Constancy of Purpose, Management by Processes & Facts, People Development & Involvement, Continuous Learning, Innovation & Improvement, Partnership Development and Public Responsibility. As Dr. Bornemann et. Al notes, "Although this model does not explicitly express IC, it contains some important elements as there are human capital, stakeholder relationship, structural capital and the deployment process of information to create knowledge."

### *Skandia Model*

The Skandia model was developed and introduced in 1991 by Skandia, a Swedish Financial company, to help them better manage Intellectual Capital. This model was revolutionary in the sense that it takes into account financial and non-financial values for business planning and control. The model translates goals into activities and is



used to implement business strategies.

As described by Skandia:

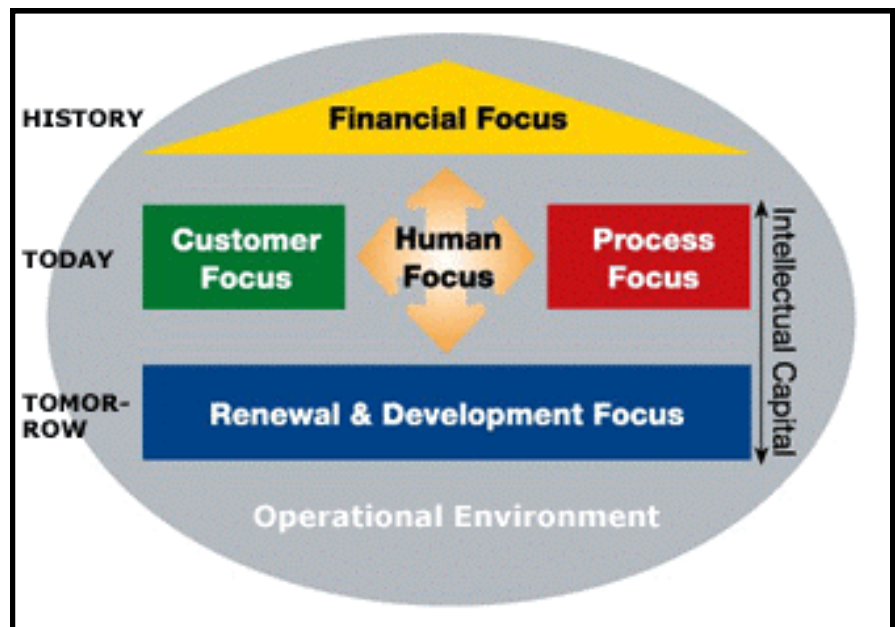
The Skandia Navigator is a collection of critical measurements that all comprise a holistic view of performance and goal achievement. The architecture of the Skandia Navigator is simple yet very sophisticated. Five focus areas or perspectives capture different areas of interest. Each area visualizes the value creation process. The Skandia Navigator facilitates a holistic understanding of the organization and its value creation.

To make sure that we are working towards our vision and strategic objectives and they will come true through our daily work, we need to visualize and translate them into concrete and measurable activities. We need a structure to help us learn from each other and make sure that our daily efforts do contribute to Skandia's overall strategic objectives. But the most important aspect of this work is how to communicate the vision and the strategic objectives to the organization as a whole. The Skandia Navigator is our tool for implementing the overall vision and strategic objectives all through the organisation.

This is similar to the BSC model in that both comprise perspectives like Financial, Customer, Human, Process and Renewal and Development. The Skandia model has made the European Union to put on their thinking cap on the issue of intangible assets.

As described on the Skandia website, the Skandia Model consists of several components. These include:

- **Financial Focus:** Captures the financial outcome of our activities. Some like to see it as a receipt. It is here where we establish the long-term goals and also a large part of the overall conditions for the other perspectives. This could be profitability and growth that our shareholder demands from us.
- **Customer Focus:** Gives an indication on how well the organization fills the needs of its customers via services and products. For example, how much of our sales derive from new customers when compared to old ones or how loyal are our customers? It represents a view that goes from the outside looking in. It is of importance that we define our customers' needs.
- **Human Focus:** The heart of the organization and is essential in a value creating organization. The process of knowledge creation is visualized in this focus area. It is also essential that the employees are pleased with their work situation; pleased employees lead to pleased customers, improving the company's sales and result.
- **Process Focus:** Captures the actual processes of creating services and products our customers desire. It covers questions like how do we handle our customer support? This focus area is also connected to the internal processes. Are we working in an efficient way? Are we working in a correct manner? Connected to this could be the importance of structural capital.
- **Renewal and Development:** Renewal and Development aims at reassuring the organizations long-term renewal and in part its sustainability. What steps and actions are we taking now to ensure long-term growth and profitability? What is required to attain and develop the knowledge needed to perceive and satisfy our customers needs? Etc.





### Intellectual Capital Report

The Intellectual Capital (IC) Report aims to better measure and value IC. The report foresees the capability of an organization and looks into sustainable development, going beyond business models and balance scorecards. Theoretical approaches to IC Reports are mostly done on two levels, the micro level and the functional approach level.

Composed of 4 parts, the micro level deals with human capital theory, human resource accounting, organizational capital and social capital. Human capital theory generally focuses on investments in education, human resources and the returns on such investments. As such, progress in human capital is reflected by the increase of resources in people through activities that influence monetary and psychic income.

The objective of the human resource accounting portion of the micro level is to gain quantitative and qualitative information about the value and cost of workforces as a firm's resource. This would be done in order to improve internal decision making, to help develop a human resource perspective, and to provide information for investors.

Organizational capital encourages the sharing of information so as to resolve conflicts and enhance cooperation within the firm. Investments in organizational capital generally may include changes of organizational structure, climate, procedures, quality of socialization processes and information systems. This would be done in order to enhance the decision-making capabilities of management.

The last component of the micro level is that of social capital. Social capital is the measure of trust and trustworthiness, norms and sanctions, expectations, identity, and identification.

The functional approach level of IC theory focuses on the accounting, controlling and management, and marketing aspects of a company. This includes aspects such as economic value added, shareholder value management, balanced scorecards, knowledge management, key account management, customer relations management and goodwill maximization.

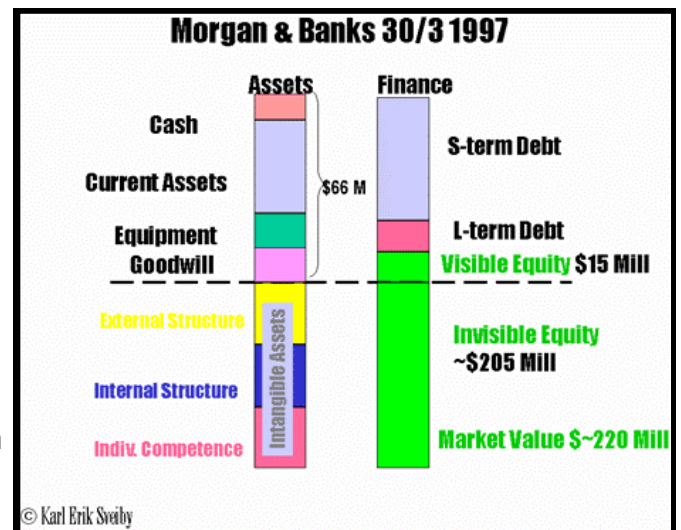
While including both "hard" and "soft" criteria, the more important aspects in terms of IC Reports would be the soft criteria, which include knowledge management, key account management, customer relations management and goodwill maximization. As such, some of the more important non-financial variables to be considered include execution of corporate strategy, management credibility, quality of corporate strategies, ability to attract and retain talented people, management expertise, and research leadership.

Indicators in the IC report are developed first through the realization of an end solution, then the identification of challenges of reaching that solution and actions that need to be taken to overcome those challenges. From these actions are the indicators developed. These indicators, as already mentioned may include both 'hard' indicators such as value added and shareholder values, as well as 'soft' indicators which include customer relations and goodwill maximization.

### Conclusion

Although still in its infancy, the management of Intellectual Capital is an increasingly important aspect of today's economy. Karl Sveiby, professor in Knowledge Management at the Swedish School of Economics and Business Administration in Helsinki and a leading researcher in knowledge management likens IC to the invisible part of an iceberg, making up a large portion of a firm's value.

Well-developed IC measuring tools are an essential component for effective knowledge management, which in turn helps the corporation as a whole to better achieve its corporate goals. Benefits of better IC measuring and reporting includes increased transparency about the use of





public and private funds via detailed disclosure, better visibility of research output within a given period as well as the benefit of such to the stakeholder, better documentation and illustration of the development of intangible assets via non-financial indicators, and identification of value potentials for the future and monitoring of the longitudinal development. The implementation of these measures and the accrued benefits would help companies improve their efficiency and increase their competitiveness to cope with competition from an increasingly global economy.

*§ Fatimah Hassan & Terence Too*

## Coming Soon!

An Event you should not miss — the “Asian Competitiveness Seminar”, organised by SERI, on Monday, September 30, 2002 at the Equatorial Hotel, Penang.

This seminar features six (6) international speakers who will deliberate on competitiveness in their respective countries

- (i) Prof Wing Thye WOO, UC Davis — Asia’s Competitiveness,
- (ii) Dr Shi-Ji GAO Institute of Economic System & Management, State Council Office for Restructuring Economic System, People’s Republic of China,
- (iii) Dr Yoo Soo HONG, Korea Institute for International Economic Policy, Korea;
- (iv) Ms. Cherry Lyn RODOLFO, University of Asia and the Pacific, Philippines,
- (v) Dr Peter BRIMBLE, The Brooker Group Public Company Limited, Thailand,
- (vi) Mr Manu BHASKARAN, Centennial Group Inc., Singapore.

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